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Number 5

FOREST CAMPING

—A Chance for Seclusion

John Stokes — State Forester

For the individual or family who likes the beauty and peacefulness of Iowa's timber lands with a minimum of facilities being provided, our state forests offer an enjoyable camping possibility.

Three state forests are open to campers in 1966. The Yellow River Forest, north of McGregor, Iowa, the Shimek State Forest located southeast of Farmington and the Stephens State Forest located west of Lucas, Iowa.

Primitive type camping is provided on all three forest units. Campers are allowed to locate their camping units in designated areas. Pit type latrines are provided on units where camping is permitted. Water is available only at Yellow River Forest at present; construction of lakes on other state forests will provide water for public use in coming years. Campers are permitted to camp at state forest units for a period of one week at no cost.

YELLOW RIVER FOREST

Campers returning to the Paint Creek Unit of the forest, or making a first visit, will find new improvements designed to make their stay more enjoyable. A number of new hiking trails have been opened to allow visitors access to the heart of the forest. Trees are identified along trails carrying the hiker into plantings of several species of evergreen trees established for research study. The trails pass wildlife ponds where it is not at all unusual to see ruffed grouse, deer, or one of the wild turkeys released on the forest area a few years ago.

Trout fishermen will find Little Paint Creek stocked periodically to provide good fishing. Some of the camp areas are adjacent to both Big Paint and Little Paint Creeks which run through the forest area.

An interesting day can be spent in traveling over the unit viewing the terrain from several overlooks that have been developed atop high limestone bluffs. These areas are provided with tables and fireplaces so that a picnic away from the main campsite can be had.

A trail ride concession will be operated again this summer for the camper who wants to travel over the several miles of completed bridle trails. Horses are available every weekend and throughout the week for groups wishing to ride. An experienced groom will lead each group over bridle trails which go through tree planting areas and along which signs identify the plant life and across wildlife pond dams.

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Jim Sherman Photo.

A spring fed stream offers a cooling stop for horses and riders on a bridle path tour of Yellow River Forest.

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CIRCULATION THIS ISSUE 57,823

COMMISSION MINUTES**State Conservation Commission Meeting Held in Des Moines, Iowa, April 5 and 6, 1966****COUNTY CONSERVATION BOARD PROJECTS**

Buchanan County received approval for the acquisition of 40 acres at a cost of \$4,000 located 1½ miles south of Aurora to be used as a timber preserve, wildlife habitat area and outdoor classroom called the Jakway Forest Area.

Linn County received approval to acquire 7.55 additional acres at their Pinicon Ridge Park at a total cost of \$18,700.00, which area is located on the Wapsipinicon River upstream from Central City.

O'Brien County received approval for the acquisition of 1 acre of land under a 10 year lease for \$1.00 to be used as a Highway Safety Rest Area called Peterson Highway Safety Rest Area located 2 miles east of Sanborn.

Polk County received approval for an addition to Camp Creek Park consisting of 2 acres at a total cost of \$1.00 located approximately 16 miles northeast of downtown Des Moines.

Washington County received approval for the acquisition of 14 acres as a gift for the purpose of preserving a hardwood timber and for use as a wildlife habitat located approximately 1½ miles southwest of Wellman.

Winnebago County received approval for an addition to Florence Park consisting of 17.36 acres at a cost of \$8,680.00 and located about 5 miles west of Thompson.

Cerro Gordo County received approval for the development of the Shell Rock River Preserve (Hoblit Property) consisting of 24.30 acres as a Wildlife Habitat Cover.

Cerro Gordo County received approval for a development plan for Zirbel Slough, a 130.39 acre marsh area which included wildlife habitat plantings.

Franklin County received approval for a development plan for Alexander Park for picnicking and a children's playground area.

Kossuth County received approval for a partial development plan for Highway 169 Artificial Lake Area which would include various wildlife plantings, south-west of the lake.

Palo Alto County received approval for various revisions to the development plans for Lost Island-Huston Park. This will allow a development of a new drive, picnic area, trailer camping area, playground area and the construction of a service building and a custodians residence.

Sac County received approval for a development plan for the Reiff Safety Rest and Wildlife Area 1½ miles south of Early for multiple use, outdoor recreational area and Highway Safety Rest Area with 40 acres to be utilized as a wildlife and winter cover habitat area.

Winnebago County received approval for a development plan for Ambrosion Park to provide fishing access to a Gravel Pit and to the Winnebago River for picnicking and camping.

LANDS AND WATERS

Approval was given to exercise two options adjacent to Stephens State Forest in Lucas County, one for 5 acres at \$35.00 per acre and one for 20 acres at \$35.00 per acre.

Approval was given for a bathhouse and sewage disposal design at Green Valley Lake and authorization for bids to be taken on the construction.

Approval was given to advertise bids to drill and case waterwells at Backbone, Rock Creek, Springbrook and Pine Lake State Parks.

Approval was given to a cooperative development plan for Wilson Island on the Missouri River.

Bids for lake bed excavation at Spring Lake in Greene County were refused.

A report was given by the Superintendent of Land Acquisition concerning Swan Lake State Park in Carroll County.

Approval was given for a contract for ten Massey-Ferguson tractors at a total cost of \$19,676.00.

Approval was given on a fuel oil bid for the Storm Lake Dredge to Mobile Oil Co., Kansas City at \$3,965.76.

Approval was given for a well at George Wyth State Park to Hoeg and Ames Inc. of Lincoln, Iowa, at a cost of \$1,710.00. Remedial work on the residence and service building was awarded to Nonn Weiler and Reichardt Construction Company of Garner at a total cost of \$11,245.00.

Mr. George West, Attorney from Des Moines met with the Commission and a contract was agreed upon for the construction of a lagoon on Black Hawk Lake by Wirtjer of Lakeview.

Don Brown of Cedar Rapids met with the Commission and proposed that the Commission accept an option on 72 acres of land adjacent

Conservation Forum

(The following letter reaches the "Forum" via the Biology Section where it was received along with a Hunters Questionnaire. For obvious reasons, we are omitting any reference to town or individual.)

Dear Sir:

In answer to the enclosed card and the previous one (which I seem to have mislaid), I would like to say that the reason I bought a license was to impress the father of a girl I was going with. He wished to go hunting and I didn't want to appear to be a soft, self-indulgent, indoor type person. We hunted pheasants (for 3 hours) and I didn't hit anything. The girl's ten year old brother, however, got 2. Since then, I have quit dating the girl. That is the sole time I went hunting this year and I am complimented that someone thought I might have gotten something.

Dear Sir:

Do we need a Minnesota License to fish the north shores of the Iowa-Minnesota border lakes? . . . Also, last summer a game warden told me we had to buy a license to fish on our own land. Will you kindly let us know which is correct?

Our Superintendent of Law Enforcement says: We have a reciprocal agreement with the State of Minnesota in regard to fishing in the border rivers. It states: "Residents of Iowa or Minnesota, holding resident fishing licenses from their respective states, may fish in any of the waters covered by this agreement whether such waters are in Iowa or Minnesota." The waters covered by the agreement are: Little Spirit, Iowa, Okamanpedan (Tuttle) and Swag lakes. Please remember, this would not entitle you to fish from the Minnesota shore.

I would have to know the exact location and name of the stream before I could give you proper information. If the stream flowing through your land is included in the list of state-owned meandered streams, you would be required to have a fishing license to fish because you would be on state property.

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to Lake Macbride. The Commission asked for an appraisal of the area and an investigation of potential use.

FISH AND GAME

Approval was given to exercise an option on 26 acres at \$200.00 per acre adjacent to Clear Creek in and adjacent to the town of Lansing.

Approval was given for the opening dates for the 1966 Hunting Season to allow people to plan their fall vacations.

Approval was given to Teal Season Regulations for 1966.

The Commission met with a delegation from the West Swan Lake vicinity to discuss the management of that lake.

Col. Coffman of the U. S. Army Corps of Engineers at Rock Island met with the Commission to discuss the planning for the Skunk River Reservoir and the proposed Bear creek lake site in Story County.

Mr. and Mrs. Darby met with the Commission and worked out a method of access to their property adjacent to Lake Odessa in Louisa County.

GENERAL

Travel was approved for Fisheries Section personnel to Federal Fish Hatcheries at Yankton, South Dakota; New London, Minnesota; Genoa and LaCrosse, Wisconsin. Approval was given for travel by District Fisheries Supervisors to Bordering Counties of adjacent States. Travel was approved to a

meeting of the Foreign Game Committee in Columbia, Missouri, the National Tree Farm Meeting in Chicago, Illinois, and for the Supt. of Engineering to the Meckum Engineering Company in Ottawa, Illinois, and to the Conservation Business Management Association in Chicago.

The Commission reviewed Lands and Waters Projects for Bureau of Outdoor Recreation participation which would include improvements at Beeds Lake, Bellevue State Park, a building at Clear Lake, the Ahquabi Spillway, Lake Anita and \$38,527.00 for planning work.

Report was given by the Supt. of Engineering concerning possible watersupply for Brown's Lake in Woodbury County. The Director of Planning set up a system of priorities for work on watershed projects.

Approval was given to a resolution stating that the Commission will participate in the recreational development of the David's Creek flood control reservoir project of the Army Engineers.

Approval was given to a resolution to allow outdoor church services to be held in State Parks under the authority of the park custodian and by all religious bodies in the State.

Informational items were discussed concerning Walnut Creek Reservoir in Dallas County, Bussey Lake development project at Guttenberg and a Progress Report on the Missouri River Complexes.



Jack Kirstein Photo.
James R. Hamilton

NEW COMMISSIONER

James R. Hamilton, Storm Lake, was sworn in as Conservation Commissioner at brief ceremonies in the Governor's Office April 5. Hamilton replaces Dr. N. K. Kinney, Ida Grove, who resigned his appointment in late March to assume the post of State Veterinarian. Hamilton's appointment will expire June 30, 1969.

Hamilton was born in the north central Iowa community of Goodell in 1916. He earned his BA degree at Buena Vista College, Storm Lake, and then went on to Creighton University, Omaha, Nebr., to earn an LLB. During World War II, Hamilton served as a Captain in the U. S. Army Airforce, European Combat Theatre.

Hamilton, a practicing lawyer, attends St. Mary's Church, Storm Lake; is a member of the Elks and Moose lodges and the Izaak Walton League. He is married and is the father of eight children.

BOOK REVIEW

The World of the Great Horned Owl, by G. Ronald Austing and John B. Hotl, Jr., J. B. Lippincott Company, 158 pp., \$4.95, is a truly remarkable addition to the **Living World Book** series.

The authors' knowledge of the natural history of the great horned owl is matched, if not exceeded by the many unique photos which profusely illustrate the readable text. Mr. Austing has published a companion book, **The World of the Red-Tailed Hawk**, and this new volume takes up where the first left off—the coming of twilight and the awakening of the owls. As the authors point out, "If hawks, in their function of keeping within bounds the populations of mammals and birds, are on the 'day shift,' owls may be said to be on the 'night shift.'"

It is difficult to convey the relaxed writing style used in this book. Suffice it to say that these men have put together a narrative that makes the owl seem to be the most exciting creature one could ever observe. And, their hair raising tales of climbing rotten trees to observe and band owlets; the varied accounts of being attacked



Jack Kirstein Photo.

WELL DRESSED OFFICERS

Conservation Officers have a "uniform" look these days—mainly because for the first time they have a uniform. This new look was made possible by the last session of the General Assembly when a law allowing the Commission to purchase clothing for Lands and Water and Fish and Game personnel who are classified as Conservation Officers was passed.

Pictured above is an officer in his sharp looking winter uniform. It consists of a modified sheriff's hat, military type over blouse, pants and oxford shoes. Accessories include regulation belt, tie, shirt, badge and name plate. A heavy nylon jacket and fur cap are provided for field use. During the summer the men will wear light weight forest green pants and khaki colored shirts.

The only difference between a Fish and Game officer's uniform and one worn by a Lands and Waters Officer is in the color of the hat. The former group wears a grey colored topper, while the latter are decked out in hats that are in a deep green shade.—JH

by irate owl parents during observation periods, and the many other adventures that befell them in their quest for knowledge make the book as good as any of the James Bond thrillers!

Summing up: **"The World of the Great Horned Owl"** is a book that must be read by every outdoorsman, every camping family, and anybody else who claims a love for nature.—JH

The opossum is the only native North American mammal that carries her young in a pouch.

Conservation Forum

(Continued from page 34)

Dear Sir:

Will you please settle an argument for some friends and myself? In making dough balls to catch carp, is there any restriction on what we may add to it, such as anise, brandy, vanilla or cinnamon—if we are using it for ourselves and not selling it?

Sincerely
Mrs. M. A. B.
Perry, Iowa

Our Superintendent of Law Enforcement says: Section 109.76 of the Code of Iowa, states that it shall be unlawful to use any poisonous or stupefying substances in the taking or attempting to take any fish. This statute indicates that you can use any substance you wish as long as it does not poison or stun the fish.

Dear Sir:

I am a member of a cave-exploring organization called the Iowa Grotto which has its headquarters in Iowa City. We locate, survey and map caves for farm owners and our own enjoyment.

... We are hoping to emphasize the importance of conserving the least known of Iowa's natural wonders.

Sincerely
G. A. H.
Iowa City, Iowa

Dear Sir:

I was reading about the return of the blue geese in the March issue. What I would like to know is how far south they go and when they raise their young.

Sincerely
C. C. C.
Ottumwa, Iowa

About 70 percent of all the blue geese winter on the marshes bordering the Gulf of Mexico, in an area stretching from about 30 miles east to 60 miles west of Avery Island. The nest of the blue goose is on the open tundra and is underway by the latter part of June, with eggs hatching about the middle of July.

Dear Editor:

Is it legal in this state to use bluegills and bullheads for bait?

W. D.
Waterloo, Iowa

Our Superintendent of Law enforcement says: Section 109.82 of the Iowa Code lists prohibited baits as carp, quillback, gar and dogfish fish or minnows. Section 109.80 of the Iowa Code permits the seining of minnows for bait and lists minnows that can be taken as shiners, suckers, dace, stonerollers, mud-minnows, redhorse, blunt-nose and fat-head minnows.

Now to answer your question, can bullheads and bluegills be used for bait—the answer is yes, if they are obtained legally. The two legal sources would be to catch them by hook and line or to obtain them from a private fish hatchery. These species could not be used in state-owned artificial lakes as all baits used in those areas must be inspected and approved by the Commission, and the Commission will approve only such minnows as listed in Section 109.80.

Dear Sirs:

Have been told that if a person is on Social Security or a Disability Pension you don't have to have a fishing and hunting license in Iowa to fish and hunt. Is this true or does one have to be a certain age? If so—how old? I am 61 years old and on a Disability Pension and my father-in-law is 78 years old and on Social Security. Please advise. Thank you.

T. M.
Moorland, Iowa

Our law section says: Under section 110.17 "License Not Required", of the Iowa Code, is listed those who are exempt from needing a hunting and fishing license. Those exempt are as follows: landowners or tenants and their children; minor inmates of state school for blind and deaf; inmates of county homes; and, any persons who are receiving old age assistance under chapter 249. Old Age Assistance under chapter 249, a state law, is not the same as receiving aid under the Federal Social Security law. Therefore, if you are receiving aid under the Social Security law, you would have to purchase a license to hunt and fish.

A particularly interesting Afri- with the swallowing of the yolk can snake is the egg eater. This and the shell is ejected. snake is able to swallow and crack hen's eggs, and sometimes pigeons' eggs, the skin being stretched to in the 50 states during 1964 to-breaking point. When the egg is taled 403 million—more than dou-cracked, the swelling collapses ble the nation's population.

HIGH ADVENTURE

-Boat Camping on the Missouri

Motorboat camping provides high adventure for water travelers now that the Mighty Mo has been tamed. The Conservation Commission has long wished to utilize this great river as a prime recreation resource, but it remained for channel stabilization to make the dream come true.

Free public boat ramps are now available at Wilson Island south of Missouri Valley, the mouth of the Little Sioux River, Snyder Bend and the Sioux City Municipal docks. This covers a one hundred mile stretch of the river. With an open throttle, this distance can easily be covered in three hours on a downstream trip, and as little as four hours going back up. Of course, such a grueling trip allows no time for enjoyment of the beauty or the activity, so the Commission has created stopping points where boaters can beach their crafts and enjoy landside activities without competition from land based recreationists.

A leisurely paced trip should start at Wilson Island and proceed upstream so that one can take advantage of the current on the way back. Wilson Island is, of course, a multiple use area as well as a boat launching site and offers much in land recreation.

After putting in, head upstream to Mile Post 645. This is Rand Bar, a 20 acre dune area reserved exclusively for boater's use. Although it is primitive, as are all the river accesses, toilets, water, picnic tables and stoves are provided. Since Rand Bar is only five miles upstream from Wilson Island, it is dealer's choice as to whether you camp overnight or not. Many do, as the dunes have high aesthetic value.

Nine miles upstream at Post 654 is Tyson Bend. This 800 acre area is replete with dunes, timber and plantings, as well as latrines, tables, etc.

Mile Post 669 marks the mouth of the Little Sioux River where a fishing access and boat ramp are maintained. No camping is allowed here, so river travelers have to navigate upstream to Mile Post 694, the site of Ivy Island. This is a 250 acre timbered tract with the same type facilities found on other Commission landings. On the way to Ivy Island, one passes Mile Post 691 where gas can be purchased.

At Mile Post 709, boats can be navigated into the lake at Winnebago Bend. Here you can lose yourself in the 1,000 acres of land and water. Here, too, you will find the best sand dune specimens along the entire Iowa stretch of the Missouri.

Snyder Bend is at Mile Post 713. Again, you pull out of the river channel and head into an ox bow lake. Camping is allowed on the area operated by the Woodbury County Conservation Board. It is well marked and easy to find.

Turn around is at the Riverside Park Ramp in Sioux City. It is located about ¼ mile up the Big Sioux River from the I 29 bridge. Here you can replenish your gas supply from a commercial marina.

Even though the Missouri has been tamed and now flows relatively clear during most of the year, boaters, both expert and novice, must keep a healthy respect for it. The river is only 600 feet wide, and 300 foot of that is operated for commercial traffic. Also, because of the channel stabilization structures, the water is fed down stream at a faster clip than one usually encounters on prairie rivers.

The Commission's Water Section urges all boaters on the Missouri to observe the following tips as well as the regular laws and regulations governing motor boating in the state.

1. Stay within the buoys set out by the U. S. Coast Guard. These red and black buoys mark the channel where boats may operate safely at normal river speeds.
2. Always park your craft on the downstream side of the wing dams. This is the only way to protect your boat from the heavy commercial traffic plying the Missouri day and night.
3. Head to the inside of the bend when approaching a barge, especially one coming up river. The barge will head to the outside to take advantage of the deep water. They often get so close to shore that they scrape the pilings!
4. When meeting a barge coming up river, you may find it safer to pull in behind a wing dam, especially if there is a good south wind blowing, as the waves created by the barge under these conditions can be extremely big. The waves will be smaller if the wind is northerly. Also, you do not have to fear the waves from barge traffic moving down river, as very little wake is created when the barges are moving with the current.

Boat campers will find that they have traversed a beautiful route. And, it is one that is relatively mosquito free (No potholes where they can hatch)! Right now the Missouri River is a little known recreation area, but we're willing to bet its reputation will quickly spread!



Jack Kirstein Photo

Rand Bar may be one of the smaller boat accesses, but it is a favorite with sunbathers, picnickers and campers alike.



Snyder's Bend's attractions are many and varied. Sandy beaches attract the picnicker while the boaters travel up the ox bow lake to the camp grounds.

STOCKING

A Fundamental of Fish Conservation

R. W. Eschmeyer

There's one basic fact that needs to be understood if we are to properly determine the role of stocking. Fish are prolific—much more prolific than most animals we deal with.

We can't give accurate figures on egg production because a big female lays far more eggs than a small female of the same species. However, in general, a trout may lay 1,000 eggs, a bass 10,000, a bluegill 20,000, a walleye 50,000, and a big carp might lay a million. Under suitable conditions, a big percentage of these eggs hatch. One study on a 14-acre lake showed that the number of fry produced naturally by four species (largemouth bass, bluegill, common sunfish, rock bass) was slightly over 500,000 per acre. The water would support only a few hundred adult fish per acre.

We have had instances where the limited brood stock present in the original river was more than adequate to provide all the young fish needed to stock big impoundments.

A big female bass in a one-acre farm pond could produce enough progeny so that, if all eggs hatched and all fish survived for three generations, there would be enough fish, at one pound each, to replace the water in the pond, and to make a heap, one acre in area extending over 700 feet above the pond!

Obviously, fish are prolific. We can understand the picture if we will think of cows each having thousands of calves each year. If each cow had only 10,000 calves adding a truck load of calves wouldn't increase the cattle population of a pasture very appreciably.

There's an added item. Fish need food—lots of it. Their food chains tend to be long. The average acre of water in the United

(Continued on page 37)

GOING CAMPING?

—Try a Game Access Area!



Jim Sherman Photo.

Game accesses, such as this one at Ingham Lake, offer Iowa campers a taste of the wild and unspoiled.

Jack Higgins

"Getting away from it all" during the summer months is the wish of many Iowans. As camping enthusiasts continue to increase by the thousands each year, it has become apparent, however, that it is an exceedingly difficult goal to achieve.

Many camping families are now seeking out little used stateowned areas that offer primitive camping and which are usually used only during the hunting season. They feel the escape from tent stake to tent stake camping which sometimes develops at major recreation areas make hunting accesses very attractive.

Actually, these campers often find "their" game access camping spot following one of Dad's fall hunting trips. As often as not, it's a return to the spot of a successful hunt, only this time the entire family is along to help scout the area during the "off" season. Dad, as well as the entire family, is usually quite surprised by the beauty they find, for a duck marsh or hunting area is a different story in the lush growing months. Gone are the somber colors of October and November; they have been replaced with teeming life of all colors and descriptions.

Campers that take a boat or canoe along with them will find their most pleasant moments will be found gliding quietly through the area. Some people say that such a visit was what really awoke their interest and love for nature. And surprisingly as it may seem, they aren't inflicted with mosquitoes to the degree that the woodland camper is.

An access area may vary in terrain from flat duck marshes to rough timbered hills or silent woods nestled in the arms of a sleepy, meandering stream. To be sure, there are many areas that are so small that camping can't be tolerated, but some are of sufficient size as to be compatible with camping purposes. And, they are located in just about every county of the state.

The following list gives the name and acres in the access, location, and a brief description. This is **all** the information the Commission has available for campers. Those with the desire to explore may find it useful. The uninitiated may be surprised to arrive at an area that bears the name "lake" only to find that it is a marsh, or just the dry remnants of a lake bed. This is why one should study the descriptions given very carefully.

All the Commission asks is that campers using the areas remember that the primary purpose of hunting accesses is the production of wildlife. We also ask that every camper leave the spot in the condition he found it: wild, unspoiled and above all, clean.

Stocking

(Continued from page 36)

States probably supports only about a hundred pounds per acre. This may range all the way from a very few pounds in some waters to a thousand pounds or more in some small highly productive waters.

It's easy to see why, during the days of the hatchery "craze," many of our hopes were unrealized. We can understand, now, why much of the stocking was ineffective or even harmful. During those days the public was quite willing to accept the belief that stocking was the panacea to all our fishing ills. We fishery workers

PUBLIC HUNTING AREAS SUITABLE FOR CAMPING

Name of Area	Acreage	Nearest Town	Description of Area
Dudgeon Lake	1,171	1 mi. N. Vinton	Borders Cedar River, $\frac{1}{4}$ water, $\frac{3}{4}$ open timber
Sweet Marsh	1,648	1 mi. E. Tripoli	$\frac{1}{2}$ marsh, $\frac{1}{2}$ open timber, prairie
Troy Mills	277	2 mi. N., 2 mi. E. Walker	Borders Wapsipinicon R.
Big Marsh	2,760	5 mi. N. Parkersburg	$\frac{1}{4}$ marsh, $\frac{3}{4}$ timber, prairie
Towhead Lake	194	2 mi. S., 7 mi. W. Pomeroy	Drained lake bed, prairie
Ventura Marsh	630	NW end of Clear Lake	$\frac{9}{10}$ marsh, $\frac{1}{10}$ prairie
Barringer Slough	1,071	2 mi. W., 1 mi. N. Ruthven	Marshy prairie
Trumbull Lake Access	39	5 mi. W., 5 mi. N. Ruthven	Lake Access
Smiths Slough	291	5 mi. N.W. Ruthven	$\frac{1}{2}$ marsh, $\frac{1}{2}$ upland
Goose Lake	465	1 mi. W. Goose Lake	$\frac{1}{2}$ shallow lake, $\frac{1}{2}$ upland
Eldon Game Area	623	3 mi. S.W. Eldon	Upland and open timber
Christopherson Slough	351	3 mi. N. Superior	$\frac{3}{8}$ marsh, $\frac{1}{4}$ open timber
Diamond Lake	563	3 mi. W., $2\frac{1}{2}$ mi. N. Orleans	$\frac{1}{2}$ lake, $\frac{1}{2}$ open timber
Jemerson Slough	333	$1\frac{1}{2}$ mi. W. Spirit Lake	$\frac{1}{3}$ marsh, $\frac{2}{3}$ upland pasture
Kettleson Hogsback	262	3 mi. N. Spirit Lake	Adjoins Hottes & Marble Lakes, timber, prairie
Prairie Lake	109	2 mi. E., 1 mi. N. Arnolds Park	$\frac{2}{3}$ marsh-lake
Spring Run	628	4 mi. E., 1 mi. N. Arnolds Park	$\frac{1}{3}$ prairie, timber
Swan Lake	380	2 mi. N. Superior	Marsh and prairie
Birge Lake	137	1 mi. N., 3 mi. W. Dolliver	$\frac{9}{10}$ shallow lake-marsh, $\frac{1}{10}$ upland timber
Cheever Lake	362	2 mi. S., $1\frac{1}{2}$ mi. W. Estherville	Drained lake bed, upland prairie
Cunningham Slough	362	6 mi. E. Wallingford	$\frac{9}{10}$ marsh, $\frac{1}{10}$ prairie
East Swan Lake	788	3 mi. W., 2 mi. S. Maple	Marsh and prairie
Four Mile Lake	242	$2\frac{1}{2}$ mi. W. Estherville	Drained lake bed
Grass Lake	171	1 mi. S., 2 mi. E. Huntington	$\frac{9}{10}$ shallow lake-marsh, $\frac{1}{10}$ timber
Ingham Lake	989	5 mi. E. Wallingford	Drained lake bed
Ryan Lake	366	2 mi. S., 1 mile W. Gruver	$\frac{3}{8}$ lake marsh, $\frac{1}{8}$ timber, prairie
Twelve Mile Lake	290	4 mi. W., 1 mi. S. Wallingford	Drained lake bed, $\frac{1}{3}$ open timber
West Swan Lake	1,043	2 mi. S., 1 mi. E. Gruver	Shallow lake bordered by timber
Forneys Lake	1,069	$2\frac{1}{2}$ mi. N.W. Thurman	Shallow lake marsh, timber
Riverton Area	941	1 mi. W. Riverton	Shallow marsh
Dunbar Slough	507	2 mi. W., 3 mi. S. Scranton	Shallow marsh, prairie
Lakin Slough	300	2 mi. E. Yale	$\frac{1}{2}$ shallow marsh, $\frac{1}{2}$ prairie
East Twin Lake	493	3 mi. E. Kanawha	$\frac{2}{3}$ shallow lake marsh, $\frac{1}{3}$ timber
Nobles Lake	232	3 mi. W., 3 mi. S. Missouri Valley	Shallow lake marsh, timber
Green Island	2,722	North Sabula	Shallow marsh and lake
Kellogg Game Area	65	$1\frac{1}{2}$ mi. E. Kellogg	$\frac{3}{10}$ timber
Muskrat Slough	366	2 mi. W. Olin	$\frac{1}{3}$ marsh, $\frac{2}{3}$ open prairie
Buffalo Creek	344	3 mi. N.E. Burt	$\frac{3}{4}$ marsh, $\frac{1}{4}$ timber
Goose Lake	244	4 mi. W., 7 mi. N. Swea City	$\frac{1}{2}$ shallow lake marsh, $\frac{1}{2}$ prairie, timber
Klum Lake	650	$2\frac{1}{2}$ mi. E., 1 mi. S. Grandview	Drained river bottom
Browns Slough	847	3 mi. E. $4\frac{1}{2}$ mi. S. Russell	$\frac{1}{3}$ lake marsh, $\frac{2}{3}$ timber
Colyn Area	770	4 mi. S. Russell	$\frac{1}{3}$ lake marsh, $\frac{2}{3}$ timber
Willow Slough	597	3 mi. S. Henderson	$\frac{1}{3}$ marsh, $\frac{2}{3}$ prairie, timber
LaHart Area	166	$2\frac{1}{2}$ mi. S.W. Lovilia	$\frac{1}{5}$ lake, $\frac{4}{5}$ open timber
Weise Slough	1,180	2 mi. E. Atalissa	$\frac{1}{5}$ shallow lake, $\frac{4}{5}$ open timber
Rush Lake	116	$3\frac{1}{2}$ mi. N., 1 mi. W. Harris	Shallow lake marsh
Blue Wing Marsh	160	1 mi. E., 2 mi. N. Ruthven	$\frac{2}{3}$ marsh, $\frac{1}{3}$ open prairie
Opedahl Area	184	5 mi. N. Ruthven	Marsh
Rush Lake	522	6 mi. N. Laurens	Shallow lake, marsh, timber
Lizzard Lake	334	2 mi. W., 4 mi. S. Gilmore City	Shallow lake and marsh
Sunken Grove	371	2 mi. S. Varina	$\frac{1}{2}$ marsh, $\frac{1}{2}$ timber
Mt. Ayr Game Area	1,158	4 mi. W., 1 mi. S. Mt. Ayr	Upland timber, prairie, ponds, marsh
Princeton Area	729	1 mi. N. Princeton	Borders Miss. River
Harmon Lake	483	4 mi. W. Scarville	$\frac{1}{2}$ marsh, $\frac{1}{2}$ prairie
Myre Slough	430	5 mi. S. Thompson	$\frac{1}{2}$ marsh, $\frac{1}{2}$ prairie, timber
Cardinal Marsh	386	2 mi. S., 2 mi. E. Cresco	$\frac{1}{2}$ marsh, $\frac{3}{4}$ prairie
Big Wall Lake	978	10 mi. N. Blairsburg	$\frac{9}{10}$ shallow lake marsh, $\frac{1}{10}$ timber
Morse Lake	172	5 mi. W. Belmond	$\frac{2}{3}$ shallow lake marsh, $\frac{1}{3}$ prairie, timber

believed it, too, and advocated it. The job of selling the stocking idea was an effective one. It was later that we learned more about fish being prolific and about the food needs.

The job of "unselling" has not been an easy one. For instance, a year or two ago we talked with a farmer about his farm pond. He had decided to start fishing it but then he observed an immense crop of bluegill fry—"millions of 'em." "We decided to wait until they grow up before starting the fishing," said the farmer. The man had a well-managed farm. He had only a limited number of cows in his pasture. He understood about

carrying capacity and overgrazing on the land. But to him the farm pond was quite different.

There's the case, too, of sportsmen being delighted when a federal truck delivered bass fry for distribution in the rather extensive bass waters of one county. The supply consisted of 5,000 fry, less than half the potential output of one female!

Though there are still exceptions, more and more sportsmen recognize the fact that stocking has limitations. In general, the public still looks on stockings as a cure-all only in those states where

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Forest Camping

(Continued from page 33)



Jim Sherman Photos.

A camp ground on Big Paint Creek in Yellow River Forest illustrates what many campers want: Primitive solitude.



Shimik Forest in southeast Iowa is being "discovered" by Iowans who want to escape from the pressures of our over developed society.

Campers moving trailers into Yellow River forest will find State Highway No. 13, northwest of McGregor-Marquette, Iowa, the best route to travel into the forest. Continue on the highway to Cherry Mound Church road where the Yellow River State Forest entrance sign will be seen. Yellow River Forest provides an excellent base camp for side trips to many interesting places in the northeast Iowa region. For instance, a twenty minute ride takes one to the Mississippi River at Harpers Ferry; while a short ride south on Highway No. 13 brings the camper to Effigy Mounds National Monument.

A custodian is on duty daily at the headquarters area where a map of the entire unit will pinpoint things for the visitor to see.

SHIMEK STATE FOREST

Travelers to the southeast corner of Iowa will find the Shimek State Forest southeast of Farmington in Lee and Van Buren Counties, an ideal camping spot.

This area provides an unusual opportunity to camp in quiet wooded country. The Donnellson Unit of Shimek Forest has the main camp area development. Some fishing is provided in a small pond along State Highway No. 2.

Hikers will find numerous wildlife ponds and planted evergreen stands. Just recently, ruffed grouse and wild turkeys were released on the unit. It is not at all uncommon to see deer on most units.

A new entrance road has been completed in the Lick Creek Unit off Highway No. 2. This road provides a quiet drive through forest areas. An overlook is being developed along this new road.

Construction will continue throughout the summer on the building of two 10 acre lakes which will provide rotation fishing. Plans are to build nine such ponds so three will always be ready to provide top fishing. Each pond can be drained periodically for restocking.

Presently, latrines are provided in areas where camping is per-

mitted. Public water is not available since water used by the resident Area Forester is purchased from the town of Farmington. The forest residence is located on the Farmington Unit just outside town.

Side trips of interest are found in southeast Iowa. Twenty-five miles east is Fort Madison, and the Mississippi River. West on Iowa Highway No. 2 is the very interesting old settlement of Bentonsport.

STEPHENS STATE FOREST

Just west of Lucas, Iowa, in Lucas County at the intersection of U. S. Highways No. 65 and 34, lies the Lucas and Whitebreast Units of the Stephens State Forest.

The Lucas Unit entrance is just west of the highway intersection. The Unit provides pleasant, peaceful drives through wooded hills. A camping area is located next to Lucas Pond. Fishing has become quite popular on the area. Present camping space is limited. However, expansion and new developments will be going on all summer. Latrines are available on the area.

The Whitebreast Unit is reached by driving south on U. S. Highway No. 65 and turning back west. Signs are erected to mark entrance into the units.

A horse unloading dock is located at Whitebreast for those bringing their own mounts on to the unit. Several miles of bridle trails are open for summer use. Hiking trails are limited, but visitors can enjoy walks along fire breaks and wood roads. A hiker may often be rewarded with a sighting of the brightly colored Reeves Pheasant which has been introduced on this state forest.

Stephens state forest is presently the least developed, but new facilities are planned for construction. Lake sites are now being studied.

In 1966 the camper will find Iowa's State Forests offer an opportunity for a different experience in camping. Some will find the quiet, peaceful, and beautiful wooded acres to their liking, while others will desire areas with more modern facilities. Why not visit a state forest and make your decision first hand?

Stocking

(Continued from page 37)

the top fishery people (some ex-hatchery men or politicians) have been disinterested in public enlightenment, for obvious reasons.

Stocking does have major limitations. But, it's one of our important fish conservation tools. Properly used, stocking plays an important role in improving our fishing.

will help fish in waters where the fish are already present, but where conditions for spawning are inadequate. For example, Minnesota has been able to provide walleye fishing in some kinds of waters by stocking them heavily with walleye fingerlings. The situations where stocking of this kind is helpful seem to be rather limited; the need for the stocking should be determined by the professional fishery worker.

Warmwater Fish

For warm waters we must rely on planting small fish. Raising game fish to adult size in hatcheries costs a fortune. Rearing a bass to 12 inches would cost an estimated two to four dollars. Not over half the planted fish can be expected to be recaptured. This raises the average price of each bass creel to four to eight dollars—more than the average price of a fishing license. So far as we know, only one state still carries on this expensive practice.

Planting warmwater fingerlings serves a good purpose in a number of instances:

1. To stock new waters, especially farm ponds and new public fishing lakes.
2. Reintroduction of fish in lakes depleted by winterkill.
3. Introducing species not already present, where such introduction is desirable.
4. Restocking of waters from which existing fish populations were removed through use of chemicals or by draining.
5. In some instances stocking

Coldwater Fish

The stocking picture for warmwater fish and coldwater fish differs rather decidedly. Trout can be raised to catchable size at a much lower cost than would be needed to raise bass or other game fish to a size where they would be attractive to anglers.

In numerous waters we can now have good trout fishing only by planting catchable-size fish. The cost is high. A single legal limit costs more than the price of a license. But, such stocking is justified if the trout fisherman is willing to pay the bill. In many trout waters, the question is one of having put-and-take stocking, or having no fishing at all. Of course, such stocking is justified only on heavily fished waters where a big percentage of the planted fish will be retaken by the angler.

In general, stocking with coldwater species may be expected to benefit fishing under these circumstances:

1. Stocking lakes where condi-

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LAKES AHQUABI AND KEOMAH

Fisheries Rehabilitated



Jack Kirstein Photos.

Draining of Ahquabi and Keomah gave the Commission a chance to place new fish shelters in these artificial lakes.



A Commission employee is seeding the new "jetties", or finger-like projections from the shores on both lakes. The jetties have increased the shore line footage and are expected to increase fishing success.



The Commission has also placed tiles around the lake beds to serve as nests for catfish. Research has shown that this popular river fish will often accept such structures as "home" and eventually reproduce.

LANDS AND WATERS
CONSERVATION OFFICER DIRECTORY

STATE PARK OFFICERS

State Park	Officer	Address
A. A. Call	Wm. Wyatt	Route 1, Box 220, Algona 50511
Backbone	Floyd Sherfy	Dundee 52038
Beeds Lake	Ed Myers	Hampton 50441
Bellevue	Kenneth Formanek	R. 3, Bellevue 52031
Black Hawk	Robert Jack	Box 7, Lake View 51450
Clear Lake	Don Carrier	R. 1, Clear Lake 50428
Dolliver Memorial	Warren Strait	R. 1, Lehigh 50557
Fort Defiance	Richard Kaduce	R. 2, Estherville 51334
Geode	Henry Savage	R. 1, Danville 50613
George Wyth Memorial	Wayne Partridge	Box 252, Cedar Falls 50613
Green Valley	John Ripberger	R. 1, Creston 50801
Gull Point	Harry Hunter	R. 2, Milford 51351
Lacey-Keosauqua	Donald Pudwell	Box 398, Keosauqua 52565
Lake Ahquabi	Caryl Carstens	R. 1, Indianola
Lake Darling	Jim McEldoon	R. 1, Brighton 52540
Lake Keomah	Wesley Jones	R. 1, Oskaloosa
Lake McBride	Charles Hagen	R. 2, Solon 52333
	Larry Kenyon (trainee)	
Lake Manawa	Harold Knoop	Manawa 107, Council Bluffs 51502
Lake of Three Fires	Joe Murphy	R. 1, Bedford 50833
Lake Wapello	Melvin Trout	R. 1, Drakesville 52552
Ledges	Albert Gandy	R. 1, Madrid 50036
Nine Eagles	Howard Coon	R. 1, Davis City 50065
Palisades-Kepler	Donald Cole	R. 2, Mt. Vernon 52314
Pammel	Herman Ripberger	R. 3, Winterset 50273
Pikes Peak	Lynn Johnson	116 Center St., Box 54, McGregor 52157
Pilot Knob	Vern Haufler	R. 1, Box 108, Forest City 50436
Pine Lake	Gene Bloudek	R. 2, Box 273, Eldora 50627
Prairie Rose Lake	Gene Carrier	R. 4, Harlan 51537
Red Haw Lake	Milan Aschbrenner	R. 1, Chariton 50049
Rock Creek	Myron Brewer	R. 2, Kellogg 50135
Springbrook	David Jack	Box 72, R. 3, Guthrie Center
Stone	Dale Brumm	R. 3, Sioux City 51103
Union Grove	Craig Kaiser	Gladbrook 50635
Viking Lake	Raymond Turner	R. 2, Stanton
Walnut Woods	Davis Lange	R. 1, West Des Moines
Wapsipinicon	Robert Glenn	Anamosa 52205
Waubonsie	Carl Burk	R. 2, Hamburg 51640
Wild Cat Den	Gary Silver	R. 3, Muscatine 52761

LAKE PATROL STATIONS—WATERS SECTION:

Station	Address	Telephone
†Gull Point & Lake Okoboji*	Wahpeton, Iowa	712-337-3377
†Spirit Lake	Orleans, Iowa	712-336-1577
†Storm Lake	Storm Lake, Iowa	712-732-4491
†Black Hawk	Lake View, Iowa	712-3163
†Clear Lake*	Clear Lake, Iowa	515-FL7-5000
†Lake Macbride	Solon, Iowa	319-644-2200
†Coralville Reservoir	Solon, Iowa	319-644-2384
Lake Manawa	Council Bluffs, Iowa	712-366-0220
Palisades-Kelper	Mt. Vernon, Iowa	319-895-6039
†Mississippi River	Davenport, Iowa	319-326-6050
†Missouri River	Missouri Valley, Iowa	712-2-2069
†State-Wide	Pleasantville, Iowa	515-848-3277

†Can be contacted by radio through local County Sheriff.

*Manned 24 hours. (Boat registration information available.)

SUPERVISORS:

Boers, Lewis M.	Pleasantville, Iowa	515-848-3277
Frankl, Harlan	3518 Kimberly Dns. Rd. Davenport	319-326-6050
Graettinger, Erwin	c/o Fish Hatchery, Clear Lake	515-FL7-5000
Jauron, Jerry	Earling, Iowa	712-747-3093
Johnson, Orville	Milford, Iowa	712-338-4794
Nuehring, Louie C.	1040 Amos St., Des Moines	515-285-1558

Stocking

(Continued from page 38)

tions are suitable, but where the trout have no spawning areas. Usually fingerlings may be stocked under these conditions. Many trout lakes provide good fishing only because of periodic fingerling stocking; others have adequate natural reproduction.

2. Restocking lakes with fingerlings after removal of existing fish populations by use of rotenone or by draining. The state of Washington, for example, has provided excellent trout fishing in a number of waters by this method.

3. Stocking with catchable-size trout. This is the only method of providing good trout fishing in many very heavily fished waters, either because they are not good trout waters or because they cannot raise enough fish naturally to

take care of the demand. For best results the fish must usually be planted at intervals just before and during the open season. Most studies show a low winter survival of these fish.

4. Stocking with anadromous fishes. Planting of small salmon is helpful where the spawning habitat has been destroyed by the building of dams or by other activity. Too, stocking with steelhead on the west coast has greatly improved runs of these fish.

Introductions

Introductions have been both beneficial and harmful. For example, trout fishing has been created in many waters by introducing trout; fishing in some waters has been destroyed by introducing carp.

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SPRING WARBLERS

Maytime, to the bird lover, is warbler time, when swarms of these colorful little "butterflies of the bird world" stop briefly to feed and rest as they migrate, in wave after wave, toward their nesting grounds. Some of them come from Central America; some from Brazil and Peru. Some of them will nest as far north as stunted trees and shrubs occur in Alaska, northern Canada and Labrador. A few of certain kinds will nest here, but most of them are here today and gone tomorrow. Only a few close observers of bird life know them well. Most folks call them "wild canaries" and let it go at that.

Warblers are important in nature and to man. We are indeed fortunate that they come when they do, in countless numbers; and that they travel only at night, stopping to feed and rest during the day. For it is in May, when flower buds and leaf buds are opening on our shrubs and trees, that myriads of insects are emerging to gorge themselves upon the tender juicy blossoms, twigs and leaflets. And all during May, these insects are searched for and eaten by the warblers: birds tailored for the job, which, as Dr. E. Laurence Palmer said, "must be done by birds so small that their weight will not break

the finer twigs; birds small enough to probe the little places; bird that are active, hungry and numerous."

Some feed in the tops of the taller trees, where they flit about incessantly. Others are usually found in the shrubs or smaller trees including at least one that seems to prefer fruit trees in blossom. Some may be seen anywhere from the treetops down to dense brush near the ground; including one that feeds chickadee-fashion, hanging upside down near twig ends, picking insects from the undersides of leaves. The Black and White Warbler, one of the first to arrive searches up and down the tree trunks and larger branches like brown creeper or a nuthatch. Some kinds prefer vegetation near streams, ponds and marshes. And there are a few—notably the Ovenbird, and the tail-wagging Palm Warbler—that do all or most of their feeding on the ground.

A few species eat seeds and small berries, but insects in the egg larva, pupa and adult stages make up most, if not all, a warbler's diet. Some are expert at catching gnats, moths and other insects on the wing. Thus the warbler tribe is of tremendous importance in controlling plant lice, scale insects, caterpillars, cankerworms, moths, bugs, beetles and a host of other injurious insects.

Of 38 kinds observed in spring migrations through the Chicago region, only 4 or 5 are abundant. About 20 more are common or fairly common. A few kinds, especially the Myrtle Warbler, begin to appear in April; a few kinds do not arrive until some time late in May and are still here in June; but there are three or four days, usually about May 15, when it is possible to see more warblers and more kinds of warblers than at any other time. To do so, you should get up a daybreak. And to study them you need a pair of good binoculars. Roger Tory Peterson's "Field Guide to the Birds", and the "Audubon Bird Guide (Eastern Land Birds)". The male warblers are all singing joyously when they arrive here in spring, and if you can learn to recognize the distinctive calls of the various species, it will help you to find them and distinguish the adult males from the yearlings, and the females which have a different and more modest plumage. When they return in the autumn, they do not sing and the males of most species appear to be different birds, having moulted and assumed a plumage closely resembling that of the female.

Woodlands bloom and warblers warble in the month of May.

—Reprinted from "The Nature Bulletin," Forest Preserve District of Cook County

Stocking

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Often sportsmen tend to want those species introduced which are not already present. If these succeed, they must generally do so at the expense of native species. Carrying capacity is limited. If we add horses, sheep and mules to a pasture, the pasture will necessarily support fewer cows than it could support before the other species were added.

In General

Stocking isn't a cure-all. For a while its value was greatly over-emphasized. It's only one of the various fish management tools. However, it is still a very important tool. Its value will depend on how intelligently the tool is used. The need for stocking should be definitely established not by the man who raises fish, or by the sportsmen, but by competent trained fishery personnel through study of the habitat and the fish population already present.

The American Fisheries Society's committee on hydrobiology

and fish culture gave a comprehensive report on advances in these two fields at a recent meeting of the Society in Seattle. Here is one of the many important observations given in the report.

Much improvement in the use of hatcheries and hatchery products is still urgently needed. All too frequently a hatchery program is operated as a distinct and separate function of a fish and game agency rather than as a branch or tool of a fisheries management division. Hatchery superintendents, sportsmen, forest rangers, and many others who have no knowledge of ecology or fish populations are given full charge of fish plantings. Fish released by such individuals frequently have less chance for survival than a palm tree in Chicago. Productive—and consequently successful—hatchery programs can be expected only where trained fishery biologists are handling planting programs and are judiciously using hatcheries as only one phase of a fisheries management program.

From Sport Fishing Institute Bulletin



This posed picture illustrates a flagrant speed and distance violation. Iowa law requires that motorboats passing crafts traveling at five (5) miles per hour or less shall keep 250 feet from that craft, or slow down to five (5) miles per hour. The rules effecting boat traffic are as important as highway rules, as both are designed to save lives.



HEY! HE'S GOT MY COPY OF THE IOWA CONSERVATIONIST!